# W. I. S. P.

(Windows Icon Silicon-disc Package)

## INTRODUCTION

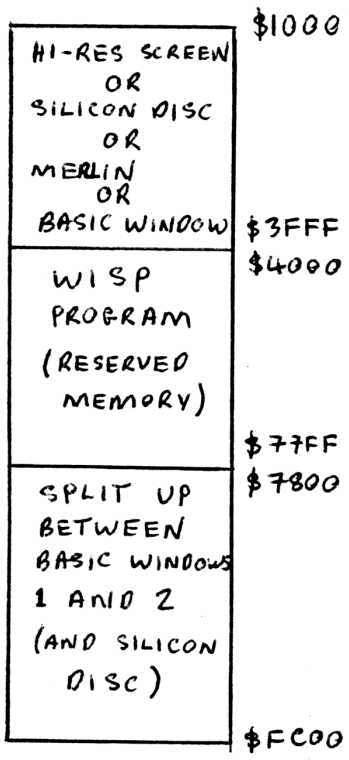
WISP provides an exciting new programming enviroment for your plus 4. It is designed to provide you with a powerful system with which to program. It is a large and complex piece of software so take your time and read the instructions carefully.

There are three devices you can save or load programs from. Disc, tape and silicon disc. The tape option has built into it a fast loader option. This uses PHOTON LOAD, the leading plus 4 fast loading system. The silicon disc allows files to be stored in the computers memory. This is very fast loading and saving.

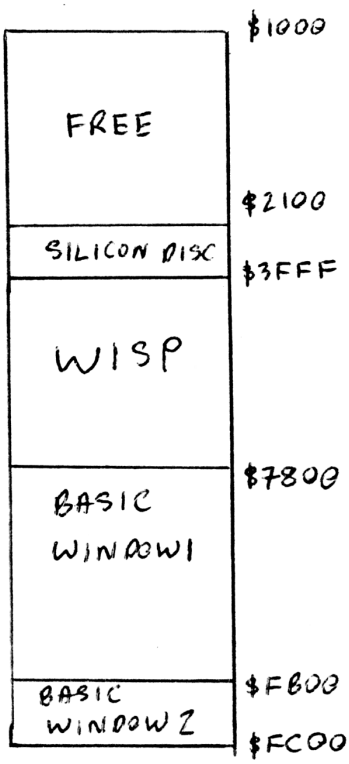
WISP also allows you to have two programs in memory at the same time which you can switch between. (Using Windowl and Window2). This is very useful if you wish to use two programs at the same time with out having to reload one of them.
N.B. When you enter a program for the first time in one of the windows you must type NEW.
The note pad is useful for remembering any addresses or numbers while you are programming. This is only one of several useful programming utilities.

As you can see a great deal goes on in the computers memory. It is therefore useful to be able to keep track of what is going on and also to control what is going on.
To do this you need to picture a 'memory map'. This is a map of how the computers memory is split up and used. When you get used to using WISP you may need to change the memory map to give you more space for a program in one of the windows or more space on your silicon disc.

Don't expect to master WISP over night. It may even take a few weeks before you realise the full potential and usefulness of this package.




MEMORY MAP




STARTING
MEMORY CONFIGURATION.

**----INSTRUCTIONS----**

-- How to use the windows. --

**ENTERING WISP:** After **WISP** has loaded you will be dumped into what appears to be a normal **PLUS 4 BASIC** operating system. With one exception; function key 8, **HELP**, is now equiped with a **SYS** command. Upon pressing the HELP key you will be take into wisp and the cursor keys will now control the **WISP** 'mouse'.

**LEAVING WISP:** To leave **WISP** you must make sure all the pull down menus are closed and place the mouse over the 'square within a square' symbol at the top left of the screen. Pressing space then will shut **WISP** down and return you to your **BASIC PLUS 4** as if nothing had happened. Even the **SYS** that jumped you into wisp will have dissapeard from the screen.

**RUN/STOP-RESET:** Executing a **RUN/STOP RESET** at any time will do no harm to **WISP** at all. However, a **RESET** would be disastrous!

The 'mouse' in **WISP** is a little arrow on the screen which moves smoothly over the screen contents without affecting it. It is controlled using the cursor keys much as you control the normal text cursor.

You can choose a pull down menu by moving the mouse onto the title of a function you want and when it becomes highlighted pressing the space bar. When you do this a menu will drop down from the command line and display its options. To choose an option you should let go of the space bar and move the mouse to the option within the window you desire. It will become highlighted and to choose it you should press space again. The option you choose will now probably jump to another sub-window or ask for textual input etc.. All the sub-menus will close themselves when you are finished with them. To leave the original menu you should move the mouse to the little 'square within a square' symbol in the menus top left hand corner and press space. If ever you get a **BELL** sound when using **WISP** it is telling you that you are pressing space when you should not be, for example ; if you pressed space when you were not over a highlighted option.

--Pull down menu N$^{0}$. 1: **CONFIG**--

This is the most powerfull window on **WISP**; it controls the actual memory arrangement of **WISP**. From this window you can enter the start and end addresses of the Silicon disks storage space, and the start and end addresses of the two program windows. You can also choose which disk drive you reqire (if you have two!) with the DEVICE option by selecting device number 8 or 9.

There are, however, some constraints over the use of memory and these are as follows...

1) From **$1000** to **$3FFF** should not be used as storage space for Basic programs. The high resolution screen can still be used and this is the space it requires. If, however, you are certain that you are not going to use the high-resoulution screen then we recommend this is the memory you allocate to the Silicon disk. It is best not to execute a **GRAPHIC CLR** with **WISP** in memory!!!!!

**NOTE: If you wish to use the High Resolution screen then please execute a RUN/STOP-RESET to prevent some of the interrupts used by WISP causing confusion.**

If you own a copy of **WIZARD SOFTWARE'S** excellent assembler **'MERLIN'** then it will reside from **$1000** to **$2100** and is totally compatible with **WISP**.

2) From **$4000** to **$77FF** should not be used for anything as this is where **WISP** resides!!

3) If you re-allocate the Silicon disk memory space when it has things stored on it they will be lost irretrevably. Before the disk is actually re-allocated you will be given an option to 'Chicken out', you choose to continue or 'Chicken out' by moving the mouse over the Y or N options and pressing space.

Apart from points 2 & 3 WISP will not give any warning messages when you allocate memory so it is best to have a good idea of your memory map before you start altering the default values which are in WISP when you load it.( To view these select **MEMORY CONFIG** from the **CONFIG** menu.)

When you re-allocate a new window area it is always a good idea to enter it and type **NEW <RET>**.

To simply swap between pre-alocated **BASIC** windows when you choose **WINDOW 1** or **WINDOW 2** from the menu and instead of choosing **RE-CONFIGURE** from the next menu choose **ENTER WINDOW** and when you exit **WISP** you will have been transfered to the Program stored in the Window you chose.

**NOTE:** If ever you move into a window and your program appears to have become garbled, this is easilly rectified by just attempting to enter the window again.

--Pull down menu N$^{0}$. 2: **FILES**--

This window has many functions in it which are still available from Basic, such as DIRECTORY, LOAD and SAVE etc.. However, choosing the options from this window allow greater ease of entry and a greater range of options; including access to **PHOTON LOAD** and the ability to save and load blocks of memory. Loading blocks of memory gives you a very usefull option which enables you to load the block into a place in memory where it did not come from! This option comes up directly after you choose **MEMORY LOAD**, and asks you if you want to use the address stored in the files header, or **RELOCATE** the block. When using **PHOTON LOAD**, and loading memory you should **always** provide a load address for the data.

All loading functions are very straight forward, when you choose an option you are asked which device you wish to use, **CASSETTE** or **DISK**. (Silicon disk does not work in this menu.) Once you have chosen this if you chose cassette you will be asked if you wish to save/load **FAST** or **SLOW**, the former being **PHOTON LOAD**. You will then be asked for the file name and then the loading procedure will begin. Other windows may pop up asking for start and end addresses if you are saving memory but these are very straight forward.( In some cases you may be asked for a start and end address for a relocated load when you only really need the start address. In that case just enter a number one larger than the start address for the second address!)

**NOTE:** You may enter Hexadecimal or Decimal numbers into any window asking for numeric data. If you wish to enter hex numbers then the first character you input should be a **$**. Please note, also, that if your number does not fill up the entire input brackets the leading zeros are required. **eg:** When entering **45** you should enter **[00045]**. Terminating your input with a **RETURN**.

When saving or loading the mouse will change into an icon signifying the device in use and will still respond to cursor movements, except if you are using **PHOTON LOAD**, when it is disabled to allow for maximum data transaction speeds.

When you save something to tape you must use the same process to load it again. **ie:** Any file saved using **PHOTON LOAD** may not be loaded back in at the normal Plus 4 tape operating system speed and visa versa.

**PHOTON LOAD NOTE:** Normally when loading or saving a touch of the **RUN/STOP** key will abort the load. Due to timing restrictions this is not possible with **PHOTON LOAD** and so to abort it is neccesary to do a **RUN/STOP RESET**.

--Pull down menu $N^0$. 3: **UTILS**--

This window offers some of the most usefull options that WISP contains, these are **OLD**, **LVAR**, **MERGE**, **NOTEPAD** and **CALCULATOR**. Each of which are explained individually below.

**OLD:** This simply reinstates a **NEW**ed program when you choose the **OLD** option from the **UTILS** window.

**LVAR:** This prints out all the variables you are currently using into a window stating whether they are **STR**ing, **INT**eger, or **FLO**ting point.

**MERGE:** This asks you for a filename of a basic program, and which device you wish to load it from etc.., and tacks the file onto the end of the basic file in the Window you are currently using. At the **DEVICE** option in this utility you may merge from the **SILICON DISK**.

**NOTEPAD:** This puts up a window on screen in which you can leave yourself notes by typing them in using the keyboard, the mouse becomes the cursor. When you close the window the text will be saved off to the Silicon disk ready for when you re-open the window. Therefore in order to use this utility you must have at least **7 PAGES** of free space left on the Silicon disk, if you do not an error window will **'POP-UP'** to warn you.

To leave the **NOTEPAD** press escape.

**CALCULATOR:**This puts up a pseudo calculator on screen which you can use for working out calculations. You choose buttons to press on the calculator's keyboard by using the mouse. The **!** is used to clear the calculator and should be done after any separate calculations. The **S** and **M** buttons are used to store (**S**) and recall (**M**) the calculators memory: A beep will tell you if you have stored a number in the calculators memory successfully.

To leave the calculator close the window which called it, the **UTILS** window.

--Pull down menu N$^0$. 4: **FONTS**--

From this window you can choose to load a font from disk or tape which will be the character set which you use when in **WISP**. It will ask you for the device and the filename and load the respective file into memory from **$4000** to **$4200**. You may define your own fonts if you like but beware if you try to load a file longer than **$200** bytes then you will **crash WISP**. If you do your own fonts they do not need to be saved off from **$4000** to **$4200** as WISP will do a relocated load. Some fonts are provided with WISP for you, they are on the DISK version **and** on the flip side of the tape version.

The other option in this window allows you to reinstate the normal Commodore character set into memory, however, you will not get back all the normal graphic symbols as some are reserved by WISP.

--Pull down menu N$^0$. 5: **SILICON DISK**--

The Silicon disk may be used just like an ordinary disk drive with only a few exceptions. The first being it does not support the normal Commodore disk program type notation. Instead two new file types have been invented, these are ; **BAS** : A Basic File.
**MEM** : A Memory Dump.

The memory space left on the disk is displayed and calculated in much the same way as on a real disk drive. However, as space is used in a much more efficient way than that on an actual disk, slight discrepancies may occur between actual disk file sizes and Silicon-disk file sizes. **Do not worry about these as they are part of the Silicon disks efficiency!**

Loading from the Silicon disk is fully automatic, so **BAS** files will be loaded into the current window as a **BASIC** file and **MEM** files will be loaded back to the block of memory they came from.

The Silicon disk does support wild card characters in the filename such as **'?'** for an unknown character and **'*'** for a rest of characters unknown.

**NOTE:** If ever you want to erase the entire contents of the Silicon disk it is best to reallocate its memory space as this is much faster!

N.B. If you wish to retain the contents of the silicon disc or notepad when you switch off the computer, you must save the memory allocated to the silicon disc off onto disc or tape. You can do this by using a memory load/save.